Treatments for Urinary Incontinence in Women

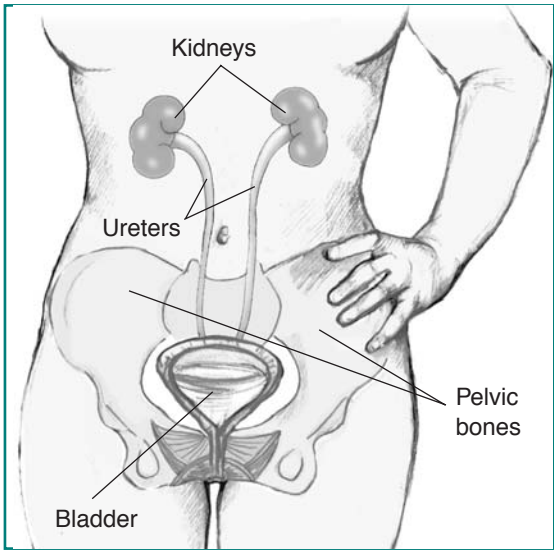
National Kidney and Urologic Diseases Information Clearinghouse

National Institute of Diabetes and Digestive and Kidney Diseases

NATIONAL INSTITUTES OF HEALTH

Millions of women experience loss of bladder control, also called urinary incontinence (UI). Some women may lose a few drops of urine while running or coughing. Others may feel a strong, sudden urge to urinate just before losing a large amount of urine. UI can be slightly bothersome or totally debilitating. For some women, the risk of public embarrassment keeps them from enjoying many activities with their family and friends.

UI is a medical problem. Your doctor or nurse can help you find a solution. No single treatment works for everyone, but most women can be treated without surgery. The treatment you select depends on your lifestyle and your preferences. Many women try the simpler treatment options first, such as changing a few habits and doing exercises to strengthen the muscles that hold urine in the bladder. If these behavioral treatments do not work, you may choose to try medicines or vaginal devices. Sometimes mild electrical stimulation to the pelvic nerves may help. And for some women, surgery is the best solution.



Front view of female urinary tract.

Behavioral Remedies: Bladder Retraining and Kegel Exercises

Your doctor or nurse may ask you to keep a bladder diary—a record of your fluid intake, trips to the bathroom, episodes of urine leakage, and an estimate of the amount of leakage. By looking at this record, the doctor may see a pattern and suggest making it a point to use the bathroom at regular timed intervals, a habit called timed voiding. As you gain control, you can extend the time between scheduled trips to the bathroom. Behavioral treatment also includes Kegel exercises to strengthen the muscles that help hold in urine.

Medicines for Overactive Bladder

Overactive bladder occurs when abnormal nerves send signals to the bladder at the wrong time, causing its muscles to squeeze without warning. Normal women may void up to 12 times a day, but women with overactive bladder may find that they must urinate more frequently. Specifically, the symptoms of overactive bladder include

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How do you do Kegel exercises?

The first step is to find the right muscles. Imagine that you are sitting on a marble and want to pick up the marble with your vagina. Imagine "sucking" the marble into your vagina.

Try not to squeeze other muscles at the same time. Be careful not to tighten your stomach, legs, or buttocks. Squeezing the wrong muscles can put more pressure on your bladder control muscles. Just squeeze the pelvic muscles. Don't hold your breath. Do not practice while urinating.

Repeat, but don't overdo it. At first, find a quiet spot to practice—your bathroom or bedroom—so you can concentrate. Pull in the pelvic muscles and hold for a count of 3. Then relax for a count of 3. Work up to 3 sets of 10 repeats. Start doing your pelvic muscle exercises lying down. This is the easiest position to do them because the muscles do not need to work against gravity. When your muscles get stronger, do your exercises sitting or standing. Working against gravity is like adding more weight.

Be patient. Don't give up. It takes just 5 minutes a day. You may not feel your bladder control improve for 3 to 6 weeks. Still, most people do notice an improvement after a few weeks.

Some people with nerve damage cannot tell whether they are doing Kegel exercises correctly or not. If you are not sure, ask your doctor or nurse to examine you while you try to do them. If it turns out that you are not squeezing the right muscles, you may still be able to learn proper Kegel exercises by doing special training with biofeedback, electrical stimulation, or both.

- *urinary frequency*—urination 13 or more times a day or 2 or more times at night
- *urinary urgency*—the sudden, strong need to urinate immediately
- *urge incontinence*—leakage or gushing of urine that follows a sudden, strong urge

If you have an overactive bladder, your doctor may prescribe a medicine to block the nerve signals that cause frequent urination and urgency.

Drugs that relax muscles and prevent bladder spasms include oxybutynin chloride (Ditropan) and tolterodine tartrate (Detrol), which belong to the class of drugs called bladder relaxants. Their most common side effect is dry mouth, although larger doses may cause blurred vision, constipation, a faster heartbeat, and flushing. Ditropan XL and Detrol LA are long-acting drugs that can be taken once a day.

Imipramine hydrochloride (Tofranil), a tricyclic antidepressant that relaxes bladder muscles and tightens urethral muscles, may be used instead of or in combination with Ditropan XL or Detrol LA. Side effects may include fatigue, dry mouth, dizziness, blurred vision, nausea, and insomnia.

If you take medicine to treat an overactive bladder, you should take several precautions.

- Wear sunglasses if your eyes become more sensitive to light.
- Take care not to become overheated.
- Chew gum or suck on sugarless hard candy to avoid dry mouth.

Different medicines can affect the nerves and muscles of the urinary tract in different ways. Pills to treat swelling (edema) or high blood pressure may increase your urine output and contribute to bladder control problems. Talk with your doctor; you may find that taking an alternative to a medicine you already take may solve the problem without adding another prescription.

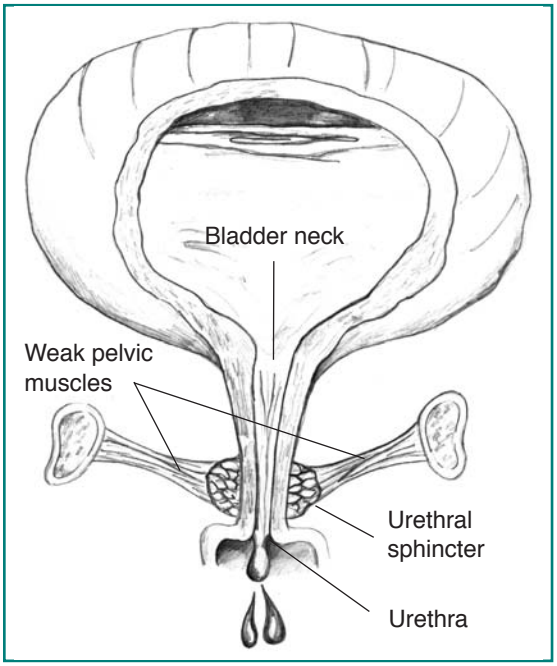
Electrical Stimulation for Nerve Problems

Mild electrical pulses can be used to stimulate the nerves that control the bladder and sphincter muscles. Depending on which nerves the doctor plans to treat, these pulses can be given through the vagina or by using patches on the skin. Other forms of electrical stimulation or neuromodulation are also available.

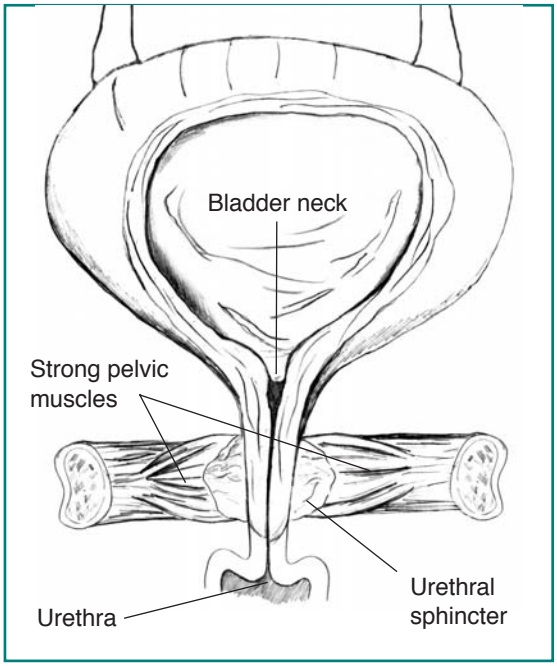
Vaginal Devices for Stress Incontinence

Stress incontinence is urine leakage that occurs when an action puts pressure on the bladder. Laughing, sneezing, coughing, rising from a chair, lifting an object, and running can all cause the stomach muscles to press down on the bladder and force urine out. Stress incontinence usually results from weak pelvic muscles, the muscles that hold the bladder in place and keep urine inside.

A pessary is a stiff ring that is inserted by a doctor or nurse into the vagina, where it presses against the wall of the vagina and the nearby urethra. The pressure helps reposition the urethra, leading to less stress leakage. If you use a pessary, you should watch for possible vaginal and urinary tract infections and see your doctor regularly.



Front view of bladder. Weak pelvic muscles allow urine leakage.



Strong pelvic muscles keep the urethra closed.

Injections for Stress Incontinence

Collagen, one of the bulking agents used for injections, is a natural tissue from cows. It is injected into tissues around the bladder neck and urethra to add bulk and close the bladder opening to reduce stress incontinence. After using local anesthesia or sedation, a doctor can inject the material in about half an hour. Over time, the body slowly eliminates the collagen, so you may need repeat injections. Before you receive collagen, a doctor will perform a skin test to determine whether you could have an allergic reaction to the material. A variety of bulking agents are available for injection. Your doctor will discuss which one may be best for you.

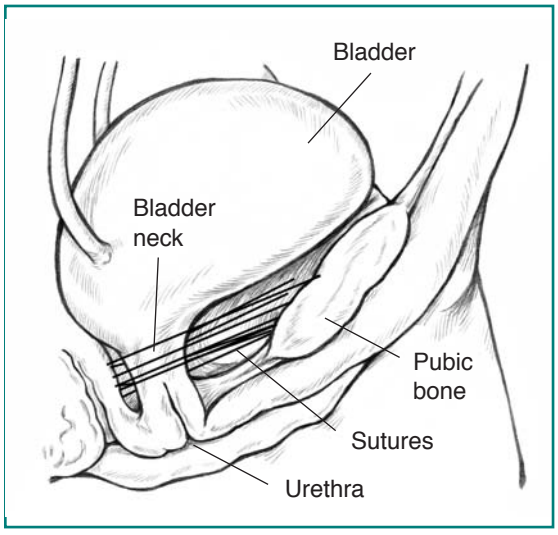
Surgery for Stress Incontinence

In some women, the bladder can move out of its normal position, especially following childbirth. Surgeons have developed different techniques for supporting the bladder in its normal position. The two main types of surgery are retropubic suspension and the sling procedure.

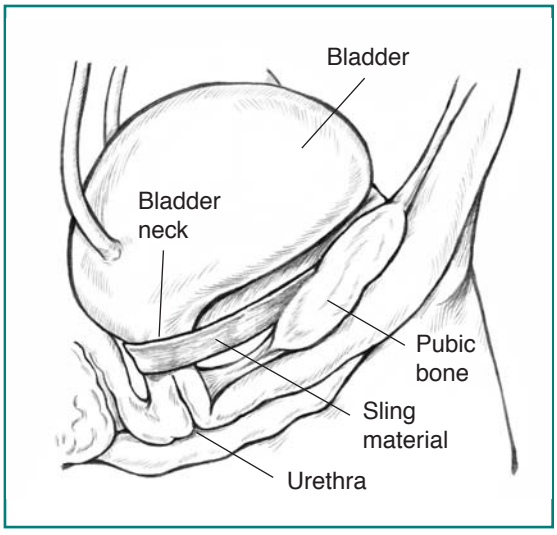
Retropubic suspension uses sutures (surgical threads) to support the bladder neck. The threads are secured to the pubic bone and other structures within the pelvis to form a cradle for the bladder. To place the sutures, the surgeon makes an incision in the abdomen a few inches below the navel.

Sling procedures are performed through a vaginal incision. The conventional sling procedure uses a strip of material to support the bladder neck. The sling may be made of natural tissue or synthetic (man-made) material. Both ends of the sling are attached to the pubic bone or tied in front of the abdomen just above the pubic bone. Another sling method uses a synthetic tape, but the ends are not tied but rather pulled up above the pubic bone.

Surgeons report that the retropubic suspension and sling procedures cure stress incontinence for at least 4 years in more than 80 percent of their cases. Possible side effects include persistent stress incontinence, bladder overactivity, and voiding changes.



Side view. Supporting sutures in place following retropubic or transvaginal suspension.



Sling in place, secured to the pubic bone.

Talk with your doctor about whether surgery will help your condition and what type of surgery is best for you. The procedure you choose may depend on your own preferences or on your surgeon's experience. Ask what you should expect after the procedure. You may also wish to talk to someone who has recently had the procedure.

Hope Through Research

The National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) has many research programs aimed at finding treatments for urinary disorders, including urinary incontinence. The NIDDK is sponsoring the Urinary Incontinence Treatment Network, a multicenter study that will evaluate and compare treatment methods for stress and mixed incontinence in women. The researchers have established criteria for selecting patients and measuring results. The goal of the study is to learn which treatment methods have the best short- and long-term outcomes for treating stress urinary incontinence in women.

For More Information

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Publications produced by the clearinghouse are carefully reviewed by both NIDDK scientists and outside experts. This fact sheet was reviewed by Ananias Diokno, M.D., William Beaumont Hospital, Royal Oak, MI; and Linda Brubaker, M.D., Loyola University Medical Center, Maywood, IL.

This fact sheet is also available at *www.urologic.niddk.nih.gov*.

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